Backgrounder

BP-177E

The P.E.I. Fixed Link Project

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25 May 1988

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TABLE OF CONTENTS

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THE P.E.I. FIXED LINK PROJECT

INTRODUCTION

When Prince Edward Island became a province of Canada in 1873, one of the terms of Confederation was to provide "efficient steam service for the conveyance of mails and passengers between the Island and the Dominion, winter and summer, thus placing the Island in continuous communication with the Intercontinental Railway and the railway system of the Dominion."(1) Though this was originally interpreted as implying a summer shipping service, the idea of a tunnel under Northumberland Strait to ensure year-round communication was proposed as early as 1885.(2) With the advent in 1917 of an icebreaking ferry, however, the tunnel idea faded into obscurity.(3)

The concept of a "fixed" crossing surfaced again in proposals from both sides of the House between 1956 and 1965, and in 1966 construction was begun on a bridge/causeway combination. This project was terminated in 1968, after access roads had been built but before the crossing had been started.(4)

Various options have been considered over the years, including railway and highway tunnels, a bridge and a causeway.

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(1) "A Bridge of Sighs," The Atlantic Advocate, 78:6-8, February 1988.

(2) Northumberland Strait Crossing Project Time Line, PWC Briefing Document, 1988.

(3) Globe and Mail (Toronto), 3 December 1987.

(4) Northumberland Strait Crossing Project Initial Environmental Evaluation, Final Report, P. Crane and Associates/Washburn and Gillis Associates to Public Works Canada, March 1988.

During preliminary feasibility studies in the 1980s the causeway idea was eliminated because of possible resulting environmental damage and the railway tunnel idea was eliminated because it would not provide a continuous link and because communication would be neither quieter nor more convenient than through the existing ferry service.(5)

The latest round of discussions began with a Public Works Canada (PWC) study in 1982, followed by several unsolicited public and private sector proposals and finally, a major PWC feasibility study in 1987-88. Preliminary proposals have been reviewed by PWC, and formal technical bids are to be received no later than 30 June 1988.(6)

The project could have important, long-lasting effects on the lifestyle and economy of P.E.I. and on the biophysical environments of the island, the mainland and Northumberland Strait. It would also change the geography of Canada by permanently connecting P.E.I. with the mainland.

The federal environment assessment and review process (EARP) requires from initiating departments that the environmental implications of all proposals be fully considered before irrevocable decisions are taken. The environmental effects of this major engineering project were therefore examined in an initial evaluation conducted in 1987-88 by the Minister of Public Works. This evaluation has become a key point in the federal government's decision-making process for the project. It is also an evaluation by which technical and socio-economic issues can be addressed and examined publicly before any work proceeds.

CURRENT PROPOSALS

At present the island is served by one year-round ferry service and one summer-only service. The year-round ferry averages 100 minutes per crossing including loading and unloading time,(7) with

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(5) Personal communication with Donna Achimov, Northumberland Strait Crossing Project, Public Works Canada.

(6) Personal communication with Michel Bourgon, Federal Environmental Assessment Review Office.

(7) Strait Facts #5, Northumberland Strait Crossing Project, October 1987.

scheduled departures every 60 minutes in summer and every 90 minutes in winter.(8) The charge for an automobile with two passengers is $11.05. The ferry service receives an annual federal subsidy of $28.5 million,(9) which does not include the cost of Coast Guard icebreaker support in winter.

Two linking concepts are under consideration: a highway bridge and a highway tunnel.(10) Either one would cross Northumberland Strait at its narrowest point, between Jourimain Island, N.B. and Cape Borden, P.E.I. Water depths here average 18 m and reach a maximum of 29 m. The 13 km route is slightly shorter than the Borden ferry route, which has a terminus at Cape Tormentine, N.B. (Figure 1).

The bridge design includes truss spans ranging from 23 to 393 m in length and a maximum height above water (in the shipping channel) of 37 m. The total crossing is a long one for a free-standing bridge, but the span between supports and other aspects of the structure are not unusual by Canadian or world engineering standards. The world's longest bridge truss is a span of 1,410 m on the Humber River, U.K.,(11) and Canada's longest is a 667 m truss on the Pierre Laporte Bridge at Quebec.(12)

The tunnel would be 13 m in diameter, possibly with a second, smaller tunnel for ventilation, and could accommodate 1,975 vehicles per hour. It would be tunnelled in rock beneath the sea floor from either one or both sides of the Strait. The tunnel would include support facilities such as emergency lighting, communications, firefighting and ventilation. Unlike the bridge, the tunnel would rank among the world's longest of its type; the next longest undersea highway tunnel is the Ena tunnel in Japan, at 8.4 km. A Swiss highway tunnel runs 16.3 km through a mountain, and a Japanese railway tunnel runs under the sea for 54 km.(13)

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(8) Personal communication, Marine Atlantic Ltd.

(9) Financial Post, 25 January 1988.

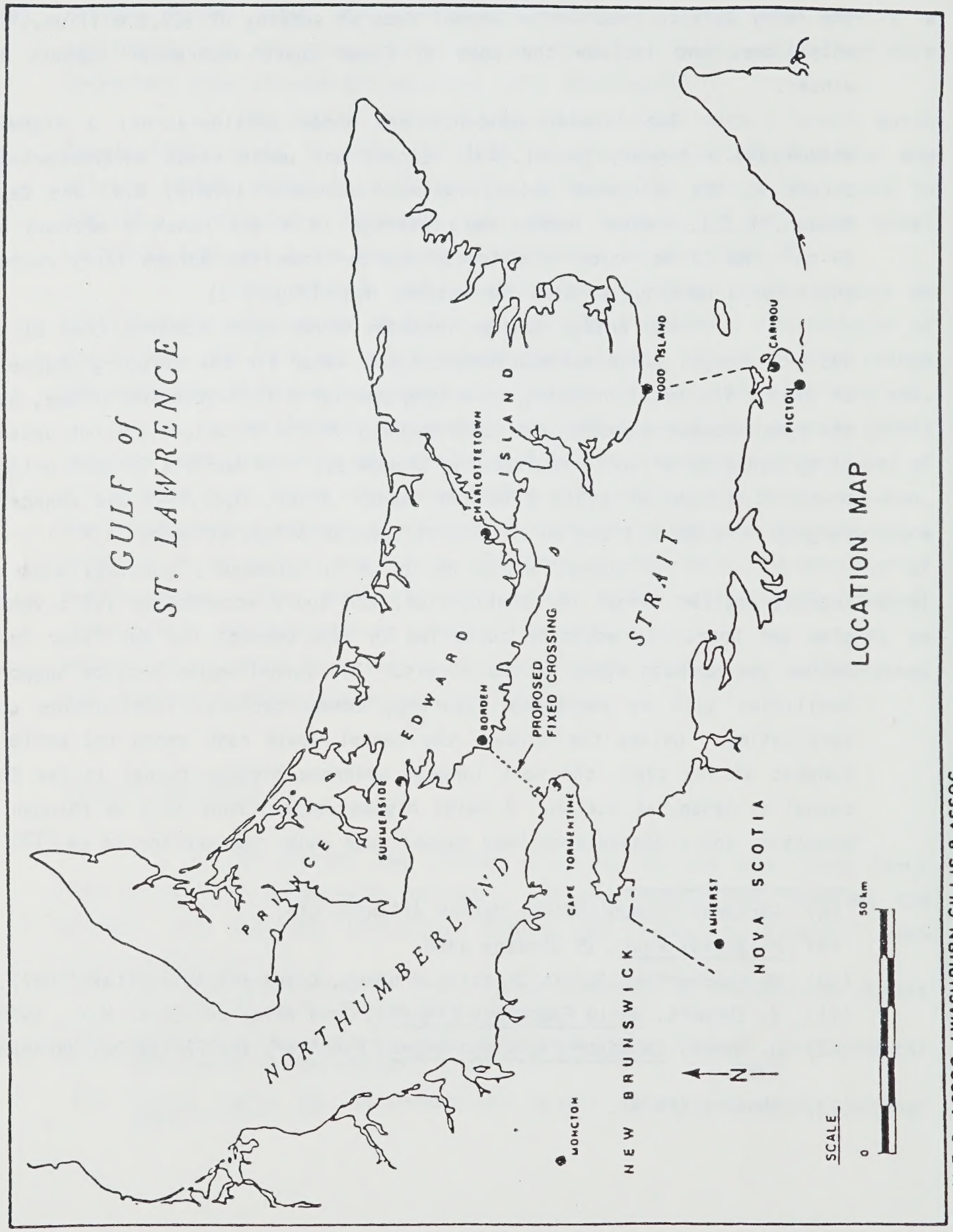
(10) Northumberland Strait Crossing Project, Crane and Associates (1987).

(11) V. Showers, World Facts and Figures, John Wiley and Sons, N.Y., 1979.

(12) J. Myers, Canadian Facts and Dates, Fitzhenry and Whiteside, Markham, 1986.

(13) Showers (1979).

Figure 1: Proposed Fixed Crossing



The bridge and the tunnel have each been estimated to cost from $500 to $700 million[14] to $900 million.[15] PWC has stated that any project approved would be regulated as a public utility and self-financed through toll charges but would receive a federal subsidy up to the amount at present provided for the ferry service. Detailed cost proposals will be requested by PWC after the technical evaluation which is expected to take place in mid-1988.[16]

ENVIRONMENTAL ASSESSMENT PROCESS

The Federal Environmental Assessment and Review Process (EARP) stipulates that the Minister of any department undertaking a construction project, or controlling lands on which construction is to take place, must conduct an environmental review. EARP includes a two stage process.

The first stage is a self-evaluation phase conducted by the initiating department. For small projects this initial assessment may be informal but for larger ones it must involve extensive public and technical consultation which would then be part of an Initial Environmental Evaluation (IEE) to be prepared by the initiating department.[17] It is at that point the responsibility of the initiating department to decide whether the project would have negligible environmental impacts and can go ahead as planned; would have effects which could be mitigated and can go ahead under prescribed conditions; would have unknown effects and needs further review prior to approval; or would have unacceptable effects and should not proceed.

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(14) Strait Facts #6, Northumberland Strait Crossing Project, January 1988.

(15) "A Bridge of Sighs" (1988).

(16) Achimov, PWC.

(17) P. Duffy, Federal Environmental Assessment and Review Process Initial Assessment Guide, Federal Environmental Assessment and Review Office (FEARO), 1986.

If the initiating department decides that further studies are necessary it should submit the proposal to further examination and subsequent reassessment or refer the project to the Minister of Environment for public review by an independent panel appointed by him. This review would constitute the second stage in the process. It is a thorough technical review for which an Environmental Impact Statement (EIS) is prepared by the initiating department. At the conclusion of the public review, the panel submits a report to both Ministers recommending whether the project should proceed. The final decision is made by the Minister of the initiating department. Of the several hundred projects subject to the EARP process each year, only about 0.1% go on to this second stage.

The initiating department monitors those projects which do proceed to construction, to ensure that any conditions imposed by the IEE or the EIS are met.

Work on a so-called generic Initial Environmental Evaluation (IEE) began in 1987 after cabinet had allocated $1 million for preparation of background studies. Thirteen research studies were conducted to provide baseline data and assessments of the possible effects of a fixed link (either bridge or tunnel) on the natural and socio-economic environment (Table 1). A public information office opened in Charlottetown in June 1987 and displays were set up in other key locations in the Maritimes over the summer. Finally, public information meetings held in November 1987 presented the results of the impact studies and invited public comment.(18)

The procedures used to develop the generic IEE thus far are complying with FEARO guidelines. A risk scoping exercise was undertaken to identify the valued ecosystem components ("environmental components at risk" or ECARs). This involved compiling a matrix of project activities and their environmental components and from these calculating a risk score to determine the extent of the impact of each activity on the environment.

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(18) Strait Facts #6, Northumberland Strait Crossing Project, January 1988.

Table 1

NORTHUMBERLAND STRAIT CROSSING PROJECT
LIST OF STUDIES
1987

Fishery and Environmental Resources, May 1987.

Vessel Traffic and Bridge Safety Study, 30 June 1987.

Assessment of Winds, Waves, Tides and Currents, May 1987.

Ice Climate Study, June 1987.

A Study of Freezing Precipitation Icing, April 1987.

Potential For Sea Spray Icing on Proposed Northumberland Strait Bridge, 1987.

Tunnel Feasibility Report, June 1987.

Northumberland Strait Bridge Substructure, May 1987.

Northumberland Strait Bridge Superstructure, 19 June 1987.

Erosion and Scour Assessment, July 1987.

Social Impact Assessment of Construction and Operation of a Fixed Crossing Between Prince Edward Island and New Brunswick, May 1987.

Financial Analysis of the Northumberland Strait Crossing Project, May 1987.

Economic Feasibility Assessment for the Northumberland Strait Crossing, June 1987.

The risk score (R) was calculated as:

$$R = M \times I \times P$$

In Table 2, M is the magnitude of change predicted for a particular ECAR; I is a measure of the importance which the ECAR is believed to have on the quality of life of Canadian citizens; and P is the probability of the project's interaction with the ECAR as postulated in the scoping matrix. Maximum values of M, I and P would give a Risk Score of 100. Note that the scores take into account both positive and negative impacts on the ECARs. R, M, I and P are presented as numerical values in Table 2, but M, I and P are only subjective estimates, even though they are based on information or measured values from study reports on particular ECARs. Points for mitigation measures, also subjectively assigned, were subtracted from the risk scores. The remainder, defined as the Residual Risk is used to evaluate whether the impact would be significant.

Table 2

BASIS OF RISK SCORING

R = M x I x P

Magnitude	1	negligible change in environment
	2	small change in environment
	3	some change in environment
	4	moderate change in environment
	5	high change in environment
Importance (I)	1	ECAR of low importance
	2	ECAR of some importance
	3	ECAR of moderate importance
	4	ECAR of high importance
Possibility (P)	1	0-20%
	2	21-40%
	3	41-60%
	4	61-80%
	5	81-100%

Source: Northumberland Strait Crossing Project Initial Environmental Evaluation. Final Report by P. Cane and Associates/Washburn and Gillis Associates to Public Works Canada, March 1988.

The risk scores give numerical values which can, though subjective, be used to evaluate or rank the significance of different impacts. Any risk score greater than 50 for biophysical ECARs and greater than 30 for socio-economic ECARs was defined as "significant."(19) The values of 50 and 30 were selected arbitrarily and do not have any physical basis.

In summary, an impact is defined as significant depending on the magnitude of its predicted effects, its importance to the quality of life and the likelihood of its occurrence. Thus, a large change in an ECAR

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(19) Northumberland Strait Crossing Project IEE (1987).

which is seen as being relatively unimportant to the quality of life can have the same significance as a small change in an ECAR which is seen as important to the quality of life.

ENVIRONMENTAL ASSESSMENT RESULTS

The generic IEE was conducted to assess the possible impacts of both bridge and tunnel fixed crossing concepts. Existing environmental and socio-economic information were used, as well as new data. In some cases it was noted that additional data would be needed in order to evaluate environmental impacts.

A. Bridge Concept: Associated Risks

The generic IEE concludes that significant impacts on the marine environment (listed in Table 3) could result from construction and operation of a bridge. Most of these could be mitigated. For instance, the chance of hazardous material spills due to traffic collisions on the bridge could be reduced through traffic controls, bridge lighting and other design features; the effects of such spills could be reduced through clean-up contingency plans and highway surface drains to collect and hold spilled materials. Similarly, detrimental effects of dredge spoil from bridge pier construction could be mitigated to some extent by control of dumping locations, seasons and methods through the Ocean Dumping Control Act. Pollution from vessel collisions could be avoided through the establishment of temporary fisheries exclusion zones to keep vessels away from the construction area. (Compensation would have to be made to excluded fishermen while such zones were in effect.) Even after mitigating measures are taken into account, there would still be significant risks from accidental spills, since these are always possible.

The generic IEE also concluded that there would be significant impacts on the terrestrial environment from the construction and operation of a bridge (see Table 3). Mitigation of the terrestrial

Table 3

BRIDGE CONCEPT
ENVIRONMENTAL RISKS

1. disposal of dredge spoil might

   - transfer contaminants to ecosystem
   - destroy benthic fauna at immediate dump site
   - kill early-life stages of lobster, scallops and herring

2. accidental marine spills of hazardous chemicals through vessel collisions with bridge or increased traffic might pollute tidal marshes and shorelines

3. accidental terrestrial spills of hazardous chemicals through traffic accidents, construction, or increased conveyance of hazardous goods on approach roads might result in pollution

4. maintenance of construction equipment or geophysical testing might lead to chronic low-level pollution

5. groundwater extraction for domestic and industrial uses during construction might deplete groundwater resources

spillage of hazardous materials would be similar to that for marine spills, with the added requirement of good housekeeping at the construction camps. To prevent groundwater depletion, other sources could be found or water trucked in during construction. As with the marine case, the prevention of accidental spills on land cannot be guaranteed, and thus such spills would remain a residual risk.

The generic IEE also predicts significant impacts on the socio-economic environment of individual communities, of larger regions and provinces and of the country as a whole.(20) These risks are summarized in Table 4.

Several socio-economic impacts relate to changes in the Island's lifestyle and are difficult if not impossible to quantify. They could best be minimized by ensuring a flow of information and opinion between the public and the project planners.

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(20) Ibid.

Table 4

FIXED LINK
SOCIO-ECONOMIC RISKS

1. national

- the public administration process may fall into disrepute if public dissatisfied with decisions
- the construction industry may fall into disrepute if there is construction or structural failure
- employment adjustment problems at end of construction phase
- increased traffic on federally-funded roads and parks

2. provincial/regional

- real estate speculation
- challenges to land-use and land ownership policies
- wage competition with traditional industries
- over-use of civil infrastructure and services (police, fire, recreation, etc.)
- dislocation of industries (especially from P.E.I.)
- changes in tourist traffic and demographics (especially diversion to P.E.I. from N.B.)
- change in distinctive Island lifestyle

3. local

- laying-off of workers from ferries and other affected industries (unemployment and possible dislocation)
- loss of ferry supply industries
- increases/decreases in real estate value
- increased traffic and demands on civil infrastructure during construction phase (from work camps)
- layoffs at end of construction or if project abandoned
- wage competition between construction and traditional industries
- disruption of local fisheries during construction

Direct economic impacts could be minimized by compensating fishermen for temporary losses due to the imposition of exclusion zones, by setting local preference standards for construction contracting, by retraining or relocating displaced ferry workers, and by assisting Borden businesses which now supply goods to the ferry service, to relocate or adapt to new markets. The temporary effects of an influx of construction workers on local infrastructures could be minimized by requiring work camps and the crossing operator to provide their own services and facilities.

Additional planning would be required to help businesses to adjust to changes in the tourist trade and vehicle traffic. Monitoring changes in vehicle traffic would be particularly important since these would affect many ECARs. Finally, provincial policies and legislation on land speculation, use and ownership would have to be examined to ensure that they maintained suitable control over changes brought about by the fixed link.

Three residual socio-economic risks were identified. Though studies indicate that a change in the distinctive lifestyle of P.E.I. is already taking place and would not be greatly affected either way by the fixed link, such a change is perceived by the public as a residual risk of the project and will therefore be a factor in the environmental review process. In communities which now depend on the ferry for employment, jobs would be lost and some dislocation might occur. In addition, nearby construction activities would cause temporary inconveniences. Finally, existing industries would find themselves temporarily in wage competition with the construction project and some permanent business failures or dislocations result.

The following information gaps precluded fuller evaluation of some of the possible impacts, or of the effectiveness of proposed mitigation procedures:(21)

- type and volume of material to be dredged;
- types and quantities of hazardous goods to be carried by the bridge traffic;
- location of construction camps, activities and water supply wells;
- types of hazardous chemicals to be used in construction;
- magnitude of increase in vehicle traffic on the Island.

Though some of these gaps will not be filled until more complete design and construction plans are available, they should be addressed before the project proceeds.

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(21) Ibid.

B. Tunnel Concept: Associated Risks

According to the generic IEE, construction and operation of a tunnel would have no significant impacts on the marine environment, but would have several on the terrestrial environment. One would be chronic low-level pollution, the risk of which, from vehicle servicing and geophysical testing, would be similar to that for the bridge concept. As well, the three million m^3 of rock drilled out of the tunnel could pose an environmental hazard if it was not disposed of properly.

The risk of dewatering local aquifers is higher for the tunnel concept, since water might have to be pumped out of the tunnel in the early construction phase, adding to the drawdown from supplying water to the construction camps. In addition, the tunnel concept poses this risk on both sides of the Strait. The groundwater problem could, however, be reduced or avoided by providing alternative water supplies.

There would be residual risks related to accidental spills; these would be limited to the tunnel portals, since a tunnel would not increase the risk of vessel collision. Mitigation measures for accidental spills in a tunnel would be the same as for spills on a bridge except that it would not be necessary to prevent material from entering the sea.

While socio-economic impacts would be similar to those for the bridge (see Table 4), one additional impact might be "tunnelphobia." It is believed likely, however, that such fear of driving through the tunnel would probably be rare and temporary. Tunnel construction, unlike bridge construction, could take place year-round. Bridge construction would work across the Strait from N.B. while tunnelling could begin at both ends of the Strait. The impacts of tunnel construction on P.E.I. would therefore be more severe than those of bridge construction, while on N.B. they would be less severe.

To predict impacts of the tunnel project, additional information is needed on the location of ventilation shafts, tunnel portals and work camps. It is expected that this information will be included in the detailed plans to be submitted to PWC. Additional baseline data on aquifers in the project area are also needed to determine the requirement for additional water supplies.

C. Summary of Risk Scores

The risk scores are summarized in Table 5. Each score is the sum of the scores for the individual ECARs within the general categories. Note that different ECARs may be relevant for the bridge and tunnel concepts. The scores are a function of the number of potential impacts on the ecological component at risk, and the likelihood, the expected magnitude and the importance of each.

The main difference between scores for the bridge or tunnel concepts are for marine biological ECARs (order of magnitude difference), terrestrial biological ECARs, and socio-economic ECARs for Nova Scotia. In total the bridge concept has a higher risk score.

Table 5

SUMMARY OF RISK SCORES

ECAR Category		Bridge	Tunnel
MARINE	Physical/Chemical	35,946	0
	Biological	363,375	9,618
TERRESTRIAL	Physical/Biological	7,120	5,564
	Biological	52,939	33,945
SOCIO-ECONOMIC	Canada	1,426	1,465
	P.E.I.	8,850	6,067
	N.B.	6,333	5,426
	N.S.	1,746	5,345
	P.E.I. Communities	10,100	11,156
	N.B. Communities	11,637	10,021
	N.S. Communities	3,741	3,871
	Borden	9,751	13,556
	Cape Tormentine	18,442	16,202
	Wood Islands	4,015	3,909
	Caribou	3,335	3,279
	Summerside	8,932	9,678
TOTAL RISK SCORES		547,443	139,102

Source: Northumberland Strait Crossing Project Initial Environmental Evaluation. Final Report by P. Cane and Associates/Washburn and Gillis Associates to Public Works Canada, March 1988.

The highest biophysical environmental impacts for the bridge concept are for marine biological ECARs and for the tunnel concept are for terrestrial biological ECARs. The highest socio-economic environmental impacts of the bridge concept would be on New Brunswick communities and of the tunnel concept would be on P.E.I. Whichever concept was implemented, Cape Tormentine, N.B., would be the community most affected.

FUTURE PROSPECTS

The generic IEE report was completed in late March 1988 and released to the public and regulatory agencies for review and comment. Detailed technical proposals have been solicited from the developers in early summer 1988 and will be evaluated against the IEE to produce a short list of acceptable proposals.(22)

The next step will be a call for price proposals, from which a preferred specific proposal will be selected. The successful proponent will be required to submit an Initial Environmental Evaluation for his proposal. Following the review of that specific IEE, the Minister of Public Works will determine whether there is a need for an independent public review.

SUMMARY AND CONCLUSIONS

PWC has proposed two feasible and apparently cost-effective and environmentally acceptable replacements for year-round ferry service to P.E.I. Thus far the initial assessment is being carried out in compliance with the federal environmental assessment process. The generic IEE has included public input and comments.

A very large number of potential environmental impacts were identified and a standardized -- though subjective -- process conducted to

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(22) Strait Facts #7, Northumberland Strait Crossing Project, February 1988.

identify the relatively more important. A government study concludes that, with appropriate mitigation procedures, either the tunnel or the bridge concept could be built and operated with acceptable environmental impacts. The tunnel would have fewer of these than the bridge.

The PWC environmental review report states, however, that additional information is required on several topics before final conclusions can be drawn about the acceptability of either project.

The Minister of Public Works has solicited detailed technical proposals. These will be evaluated against criteria established in the generic IEE document and any which are not environmentally acceptable will be eliminated. Price competition will then come into play.

The full extent of any further evaluation for biophysical and socio-economic effects remains to be determined. The Premier of P.E.I. has expressed a desire for additional, detailed studies, while the Environment Minister has cautioned against deciding about an independent public review before the initial assessment stage has been completed.

CHRONOLOGY

1832 - A summer-only steamer service began between Pictou, Nova Scotia and Charlottetown, P.E.I.

1852 - Similar steamer service was initiated between points in P.E.I., New Brunswick and Nova Scotia.

1869 - Governor General Young tried to negotiate "better terms" of Confederation for P.E.I., including "... efficient steam communication between the Island the mainland ..."

1871 - First contract let for construction of P.E.I. railway.

1873 - Improved second terms of Confederation were negotiated. P.E.I. joined the Dominion of Canada.

1876 - Terms of Confederation promising "efficient steam communication" were not met. For three years crossings were made in primitive, open ice boats.

1877 - Ottawa agreed to provide a subsidy for steam communication. The steamer Northern Light travelled between the mainland and Georgetown, P.E.I., across the Strait of Northumberland and was the first steamer to establish a regular winter connection.

However, when the ice grew too thick for the steamer, communications were resumed by the ice boats.

1885 - Senator George Howlan proposed a tunnel under the Strait or a subway laid along the seafloor.

1886 - Premier W.W. Sullivan and the Provincial Secretary went to London to seek endorsement for tunnel project from the Colonial Office.

1887 - Howlan suggested Ottawa give his company complete ownership of the P.E.I. Railway and a $200,000 annual operating subsidy. He estimated his proposed tunnel would earn $100,000; his company could then pay off both railway and tunnel debts within 50 years and Ottawa would save $50,000 annually on rail/steamship subsidies.

1888 - A shipyard in Scotland began work on a new steamship.

The S.S. Stanley entered service November 1888. It was steel hulled and had better engines than her wooden predecessors.

1890 - Tunnel concept resurfaced. Tunnel technology abroad advancing. S.S. Stanley experienced breakdowns.

1891 - Government sponsored another series of tunnel studies and surveys. No decision rendered.

1905 - Steamship technology was advancing and railway links set up on P.E.I. Fixed crossing became less of a requirement.

1912 - Increase in provincial subsidy approved after the Island government argued that the standards of efficiency maintained in other provinces of Canada exceeded that of P.E.I. and that therefore the government was in breach.

1917-18 - Advent of ice-breaking ferries. S.S. P.E.I. inaugurated. First year-round vehicle service from P.E.I. to mainland.

1931 - Ferry service supplemented by M.V. Charlottetown.

1948 - M.V. Abegweit put in operation.

1956 - Provincial government approached federal government with proposal to investigate feasibility of a permanent crossing.

1958 - Consortium of consulting engineers - C.B. Joint Venture in conjunction with several federal government agencies put forth detailed feasibility study for constructing rock-filled causeway from Jourimain Island, New Brunswick to Borden Point, P.E.I.

- Results indicated that a fixed crossing was possible, but that special attention would be required for ice forces and tidal action.

1962 - M.V. Confederation put in operation, for summer service only.

- Northumberland Consultants Ltd. conducted studies for proposed crossing and concluded the best solution was a combination bridge, causeway and tunnel for road and rail service.

1965 - Federal government appointed Colonel E. Churchill to coordinate and review several crossing schemes. He recommended a bridge structure with two highway lanes, high level spans over the navigation channel and short causeway sections.

1968 - Stanford Research Institute was engaged by Transport Canada to conduct cost/benefit evaluation of proposed crossing.

1969 - Plan for proposed crossing was abandoned when the province opted for an economic development agreement and an improved ferry service instead.

- French-built vessel Lucy Maud Montgomery put into service.

1982 - PWC reviewed design of a bridge crossing and prepared estimate for submission with approximate cost of $640 million (1982 dollars).

1985-86 - Government received three unsolicited proposals from private industry for bridges and an electric rail tunnel. Industry also offered to finance the scheme.

1986 - Government gave permission for PWC to commission further studies.

1987 - Fifteen Atlantic-based consultants were invited to assess the environmental and socio-economic viability of a fixed crossing. A call for expressions of interest was issued in June, with 12 Canadian companies responding.

- Seven out of 12 companies were prequalified and have been invited to submit proposals for the construction, operation and maintenance of a fixed crossing.

- Province of P.E.I. announced plebiscite to determine Islanders' support for the project.

1988 - In the 18 January plebiscite, Islanders voted 59% in favour of a fixed crossing.

- Generic Initial Environmental Evaluation (IEE) released to public and detailed technical proposals were requested from developers (late March).